



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,651	11/04/2003	Atsushi Watanabe	392.1835	5371
21171	7590	06/30/2005	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			MONBLEAU, DAVIENNE N	
			ART UNIT	PAPER NUMBER
			2878	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/699,651

Applicant(s)

WATANABE ET AL.

Examiner

Davienne Monbleau

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/4/03; 12/23/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

The IDS filed on 11/4/03 and 12/23/04 has been acknowledged and a signed copy of the PTO-1449 is attached herein.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

### ***Drawings***

The specification makes reference to certain elements in the drawings with different or inconsistent reference names. Correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

*Claims 1-6 and 8-10, to the extent taught and understood, are rejected under 35*

*U.S.C. 102(b) as being anticipated by Milbrath et al. (U.S. 6,166,371).*

Regarding Claim 1, *Milbrath* discloses in Figure 7 a safety device for an automatic machine system including a plurality of operating areas (X, Z) in which an automatic machine (8) carries out operation on objects and preparing areas (outside of light curtain perimeter) adjacent to the respective operating areas (X, Z) and in which the objects to be fed into the respective operating areas (X, Z) by an operator are prepared, the safety device comprising first detecting means (1, 3) each disposed between each the operating area (X, Z) and the preparing area to detect entrance of an operator into each the operating area (X, Z), discriminating means (column 8 lines 1-15) for discriminating the operating area (X, Z) in which the automatic machine (8) is operating, and means for stopping (column 8 lines 44-47) the automatic machine (8) when entrance of an operator into the operating area (X, Z) is detected by the first detecting means (1, 3) corresponding to the operating area (X, Z) which is discriminated by the discriminating means as the area where the automatic machine (8) is operating.

Regarding Claim 2, *Milbrath* discloses in Figure 7 a safety device for an automatic machine system including an area for installation (Y) of an automatic machine (8), a plurality of operating areas (X, Z) adjacent to the installation area (Y) and where the automatic machine (8) enters and carries out operation on objects, and preparing areas (outside of light curtain perimeter) adjacent to the respective operating areas (X, Z) and in which the objects to be fed into the respective operating areas (X, Z) by an operator are prepared, the safety device comprising first detecting means (1, 3) each disposed between each the operating area (X, Z) and the preparing area to detect entrance of an operator into each the operating area (X, Z), discriminating means (column 8 lines 1-15) for discriminating the operating area (X, Z) in which the automatic machine (8) is operating, means for stopping (column 8 lines 44-47) the automatic

Art Unit: 2878

machine (8) when entrance of an operator into the operating area (X, Z) is detected by the first detecting means corresponding to the operating area (X, Z) which is discriminated by the discriminating means as the area where the automatic machine (8) is operating, second detecting means (12) each disposed between the installation area (Y) and each the operating area (X, Z) to detect entrance of an operator into the installation area (Y), and means for stopping (column 8 lines 44-47) the automatic machine (8) when entrance of an operator into the installation area (Y) is detected by the second detecting means corresponding to the operating area (X, Z) other than the operating area (X, Z) which is discriminated by the discriminating means as the area in which the automatic machine (8) is operating.

Regarding Claim 3, *Milbrath* discloses in Figure 7 a safety device for an automatic machine system including an area for installation (Y) of an automatic machine (8), a plurality of operating areas (X, Z) adjacent to the installation area (Y) and where the automatic machine (8) enters and carries out operation on objects and preparing areas (outside the light curtain perimeter) adjacent to the respective operating areas (X, Z) and in which the objects to be fed into the respective operating areas (X, Z) by an operator are prepared, the safety device comprising first detecting means (1, 3) each disposed between each the operating area (X, Z) and the preparing area to detect entrance of an operator into each the operating area (X, Z), means for discriminating (column 8 lines 1-15) the operating area (X, Z) in which the automatic machine (8) is operating, means for stopping (column 8 lines 44-47) the automatic machine (8) when entrance of an operator into the operating area (X, Z) is detected by the first detecting means corresponding to the operating area (X, Z) which is discriminated by the discriminating means as the area where the automatic machine (8) is operating; second detecting means (12) each

Art Unit: 2878

disposed between the installation area (Y) and each the operating area (X, Z) to detect at least one of entrance of an operator into the installation area (Y) and means for stopping (column 8 lines 44-47) the automatic machine (8) when the second detecting means corresponding to the operating area (X, Z) other than the operating area (X, Z) which is discriminated by the discriminating means as the area where the automatic machine (8) is operating detects at least one of entrance of an operator into the installation area (Y) and entrance of the automatic machine (8) into the operating area (X, Z) other than the operating area (X, Z) which is discriminated as the area where the automatic machine (8) is operating.

Regarding Claim 4, *Milbrath* discloses in Figure 7 and in column 3 lines 39-45 means for outputting an informing signal for informing of the operating area where an operator is staying, in accordance with an operator's operation and means for controlling the automatic machine (8), in response to the informing signal, so that the automatic machine (8) does not enter the operating area (X, Z) where an operator is staying.

Regarding Claim 5, *Milbrath* discloses in Figure 7 and in column 3 lines 39-45 a safety device for an automatic machine system including an area for installation (Y) of an automatic machine (8), a plurality of operating areas (X, Z) adjacent to the installation area (Y) and where the automatic machine (8) enters and carries out operation on objects, and preparing areas (outside the light curtain perimeter) adjacent to the respective operating areas (X, Z) and in which the objects to be fed into the respective operating areas (X, Z) by an operator are prepared, the safety device comprising first detecting means (1, 3) each disposed between each the operating area (X, Z) and the preparing area to detect entrance of an operator into each the operating area (X, Z), means for discriminating (column 8 lines 1-15) the operating area (X, Z)

Art Unit: 2878

in which the automatic machine (8) is operating, means for stopping (column 8 lines 44-47) the automatic machine (8) when entrance of an operator into the operating area (X, Z) is detected by the first detecting means corresponding to the operating area (X, Z) which is discriminated by the discriminating means as the area where the automatic machine (8) is operating, second detecting means (12) each disposed between the installation area (Y) and each the operating area (X, Z) to detect entrance of an operator into the installation area (Y) and entrance of the automatic machine (8) into each the operating area (X, Z), means for stopping (column 8 lines 44-47) the automatic machine (8) when the second detecting means corresponding to the operating area (X, Z) other than the operating area (X, Z) which is discriminated by the discriminating means as the area where the automatic machine (8) is operating detects entrance of the operator into the installation area (Y), means for outputting an informing signal (alarm) for informing of the operating area (X, Z) where an operator is staying in accordance with the operator's operation, and means for stopping (column 8 lines 44-47) the automatic machine (8) when entrance of the automatic machine (8) into the operating area (X, Z) where an operator is staying is detected by the second detecting means corresponding to the operating area (X, Z), upon receiving the informing signal (alarm) indicating that the operator is staying.

Regarding Claim 6, *Milbrath* discloses in Figure 7 indicating means for enabling an operator to recognize the operating area (X, Z) which is discriminated by the discriminating means as the area where the automatic machine (8) is operating. This is inherent in order for the operator to know which light curtain (detecting means) is "down" so the operator can enter the operating area to load an object.

Art Unit: 2878

Regarding Claim 8, *Milbrath* discloses in Figure 7 that the automatic machine (8) is a robot.

Regarding Claim 9, *Milbrath* discloses in Figure 7 that the first detecting means (1, 3) are safety fences. (Webster dictionary of fence: a barrier intended to prevent escape or intrusion or to mark a boundary).

Regarding Claim 10, *Milbrath* discloses in Figure 7 that the second detecting means (12) are photoelectric sensors (light curtains).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

*Claim 7, to the extent taught and understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Milbrath.*



Art Unit: 2878

Regarding Claim 7, *Milbrath* teaches in Figure 7 and in column 8 lines 44-47 indicating means, but does not teach that it is a lamp or a buzzer. It would have been obvious, however, to one of ordinary skill in the art at the time of the invention to use a suitable visual or audio signal to efficiently alert the operator of the intrusion into a particular zone.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure because they teach various intrusion detection device comprising working zones for a machine/device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davienne Monbleau whose telephone number is 571-272-1945. The examiner can normally be reached on Mon-Fri 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Davienne Monbleau*

DNM

  
DAVID PORTA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800